

MEMORANDUM

TO: Larry Noble, Iowa Public Safety Commissioner
John Baldwin, Director of Iowa Department of Corrections
Roger Lande, Director Iowa Department of Natural Resources
Paul Trombino, Director Iowa Department of Transportation

FROM: Senator Matt McCoy, Co-Chair of Transportation, Infrastructure and
Capitals Appropriations Subcommittee

SUBJECT: Hearing on Radio Procurement Practices and Intra-Governmental
Collaboration

DATE: January 27, 2012

Your attendance is respectfully requested at a legislative committee hearing to discuss the State of Iowa's procurement of land mobile radios and corresponding radio communications equipment to be held in Room 102 of the Iowa Capitol on Tuesday, February 7th at 10:00 AM. The hearing will be held by the Transportation, Infrastructure and Capitals Appropriations Subcommittee and is expected to last approximately 60-90 minutes. We will schedule additional hearings as necessary. My colleagues and I would like you or a designee to appear along with anyone from your department that serves as an expert on the subject matter outlined in this memorandum. **The Subcommittee would appreciate copies of all written materials at least two days prior to the hearing so that every member has an opportunity to thoughtfully consider this important information.** Those materials can be submitted to my legislative assistant, Christian Zenti.

The Subcommittee expects each department to provide detailed testimony and written materials that speak to the following:

- Full accounting of portable and mobile radios by department since the creation of the ISICSB
 1. How many portable and mobile radios does your department present possess?
 - a. By brand
 - b. By cost
 - c. By procurement date
 2. Were any of these radios purchased pursuant to a competitive bid?
 - a. Reference the specific DAS public bid number that identifies all separate competitions along with copies of each RFP or RFI
 3. Does your department plan to purchase any portable and mobile radios in FY 2012, 2013 or 2014?
 - a. If yes, how many (by fiscal year)
 - b. Will these purchases be made pursuant to a competitive bid?
 - c. Is your department presently in the process of procuring portable and mobile radios?

- d. Name of all individuals in your department responsible for advising on matters concerning radio procurement
- Implementation plan and corresponding budget to meet federal communications mandates
 1. How much will this cost?
 2. What are technical and logistical obstacles?
 3. Timeline for implementation?
 4. Does the Iowa General Assembly need to pass new laws or eliminate presently existing laws to more efficiently accomplish the goal of meeting federal communications mandates
 - Implementation plan and corresponding budget to create communication interoperability between State and local public safety entities and between all state entities that use mobile and portable radios
 1. How much will this cost?
 2. What are technical and logistical obstacles?
 3. Timeline for implementation?

CONCLUSION

Iowa taxpayers and first responders throughout the public safety spectrum expect a radio communication system that is effective to meet 21st Century challenges. The Iowa General Assembly has been asked to provide funding for the development, procurement and maintenance of a new system to meet these modern challenges. The ISICSB was created in 2007 for the purpose of addressing multi-jurisdictional interoperability. A growing number of Iowa legislators feel an overall lack of communication, collaboration and efficiency is being devoted to delivering on the goal in a manner that is efficient to taxpayers while meeting the immediate and long term needs of men and women in uniform.



TO: Transportation, Infrastructure, and Capitals Appropriations Subcommittee Members

FROM: Larry L. Noble, Commissioner

DATE: February 6, 2012

RE: Request for information regarding DPS radio equipment and system

Full accounting of portable and mobile radios by department since the creation of the ISICSB:

1. How many portable and mobile radios does your department present possess?

- a. **By brand**
 - b. **By cost**
 - c. **By procurement date**
- Iowa State Patrol
 - 427 Motorola EX600 handhelds, \$970.00 each, purchased in 2009 (narrowband compliant).
 - Approx. 350 Motorola W3 Astro Spectra VHF mobile radios with Vehicular Repeater System, \$5,985.00 each, purchased in 1999. (NOT narrowband compliant)
 - 125 Motorola APX 7500 VHF, 700/800 MHz mobile radios with Vehicular Repeater System, \$10,066 each, purchased in 2011 (narrowband compliant).
 - Investigative Operations:
 - 334 Motorola W3 Astro Spectra mobile radios units (without VRS), \$3,000 per unit, purchased over a period from 1999 to 2007 (narrowband compliant).
 - 55 RACOM M/A-COM handheld radios, \$4,355 each (narrowband compliant).
 - 63 Kenwood UHF radios, \$300 each, (narrowband compliant).
 - 30 Kenwood VHF handheld radios, \$300.00 each (narrowband compliant).

2. Were any of these radios purchased pursuant to a competitive bid?

These radios were purchased from a master state contract.

- a. Reference the specific DAS public bid number that identifies all separate competitions along with copies of each RFP or RFI**

Contract # RFB0410005032

3. Does your department plan to purchase any portable and mobile radios in FY 2012, 2013 or 2014?

DPS does need to purchase approximately 275 mobile radios suitable for use by the Iowa State Patrol some time before the narrowband mandate deadline in order to be compliant with federal law. However, it is not yet clear when a purchase will be made as DPS has received six responses to an RFI for a statewide communications system, and has engaged an outside consultant to help evaluate the responses. The information gained from this process (which relates primarily to options for a statewide communications system infrastructure) may have implications for the quantity and type of radio equipment that will need to be purchased.

a. If yes, how many (by fiscal year)

275 are needed for ISP. The other DPS divisions have equipment that is aging and will need to be replaced in the near future, however, these radios are narrowband compliant so the schedule for replacement will be based upon the longevity of the equipment.

b. Will these purchases be made pursuant to a competitive bid?

Yes.

c. Is your department presently in the process of procuring portable and mobile radios?

No.

d. Name of all individuals in your department responsible for advising on matters concerning radio procurement

- Steve Ponsetto, Executive Officer to the Commissioner
- Dave Heuton, Director, DPS Administrative Services Division
- Col. Patrick Hoyer, ISP Chief
- Major. Rich Kineth, ISP
- Capt. Curt Henderson, ISP
- Sgt. Thomas Lampe, ISP

Implementation plan and corresponding budget to meet federal communications mandates:

1. How much will this cost?

This is unclear, as we are not yet sure what radio equipment will be purchased. A rough estimate is approximately \$2.75 million.

2. What are technical and logistical obstacles?

The major obstacle is the timeframe to accomplish narrowband compliance. Further, the process of narrowbanding while remaining in the VHF high band spectrum presents certain technical challenges. The current VHF high band radio system used by state law enforcement agencies is built upon a technological model that was favored in the 1970s. It features a relatively small number of very large high output towers to cover a given area. This model stands in contrast to Land Mobile Radio (LMR) systems that are being developed in the 700/800 MHz range. These systems typically feature a larger number of smaller, lower output towers, and higher communication capacity usable by multiple agencies.

In the course of transitioning to narrowband communications, the state radio system has remained in the VHF high band frequency range. Remaining in the VHF high band has kept transition costs much lower than would be the case to move to the 700/800 MHz spectrum, however, it also presents certain problems. Most notable among those is significant problems with interference from other users, signal skip, and loss of coverage.

Signal skip is a phenomena that can result in VHF signals traveling far beyond the distance they normally travel, which is typically “line of sight.” A number of natural events, such as stalled weather systems, sun flares, and meteor showers can cause VHF signals to travel hundreds of miles. When this occurs, users in one area can suddenly begin receiving transmissions from users that are great distances away, which interferes with communications and operations generally, not only by directly disrupting the communications of users in a particular area, but also by causing confusion about who is transmitting and what sort of assistance or action is needed.

Both Nebraska and Missouri, which have been operating primarily in the VHF high band, are remaining in the VHF high band (unlike many other jurisdictions that are transitioning to the 700/800 MHz spectrum), but are building out a “trunked” system and adding additional towers to regain coverage lost during narrowband conversion. Unfortunately, this has exacerbated problems with signal interference and signal skip.

The problems are particularly severe along the southern and western Iowa borders, with similar issues occurring near the Iowa border with Wisconsin, though the problems can and do occur throughout the state. At times, the problems have become so severe that major communications disruptions have occurred, presenting a potential for life threatening situations.

3. Timeline for implementation?

- All mobile radios in DPS have been reprogrammed to comply with the federal narrowband mandate. This reprogramming was for DPS Base Channel only. Mobile radios are units that are installed in vehicles. Handheld radios are not considered to be mobile radios, but instead are typically referred to as “portable radios.”
- All DPS tower repeaters have been narrowbanded at the tower sites. This is for DPS Base Channel only.

- DPS will begin narrowbanding LEA (Law Enforcement Assistance) Channel and all remaining DPS Channels (Iowa, Mutual Aid) on April 2nd, 2012.*

***NOTES:**

- The LEA channel is a common channel for law enforcement use when one officer or agency needs assistance from other law enforcement agencies. Examples of the types of situations when the LEA channel is used are pursuits, barricaded subjects or hostage situations, or any other circumstance when an officer is in need of assistance. The LEA channel was created when the state's current high band (VHF) public safety communication systems was developed in the 1970s. Most states in the nation do not have a statewide LEA channel, so in many regards, Iowa was pursuing a basic and somewhat limited form of communications interoperability many decades before communications interoperability became a nationwide priority. Given that the LEA channel will be narrowbanded to comply with the federal mandate (see schedule below), the access to and availability of LEA will be further reduced.
- The Iowa channel is used for law enforcement communications with non-law enforcement agencies and entities. If, for example, a state Trooper encountered a dangerous road condition, such as an oil spill, ice, or major road surface defect, the Trooper (or deputy, or police officer, etc...) could communicate with local DOT maintenance personnel to coordinate a response to the scene.
- The Mutual Aid channel is used for joint communications among multiple public safety agencies in a specific location or area when joint operations or responses are occurring, but when there is not a need for broader communications to all law enforcement agencies over a larger geographic area. Unlike the LEA channel, the Mutual Aid channel is not a repeated channel, which means that transmissions will be confined to a smaller geographic area instead of transmissions being repeated among multiple towers covering a larger area.

The narrowbanding of LEA, Iowa, Mutual Aid, and Point-to-Point (PTP) conversion schedule is as follows:

- APRIL 2ND – APRIL 6TH --- DES MOINES STATE RADIO LEA FREQUENCIES INCLUDING THE FOLLOWING: DES MOINES LEA, LAUREL LEA, ST MARYS LEA, AND VAN WERT LEA.
- APRIL 16TH – 20TH --- ATLANTIC STATE RADIO LEA FREQUENCIES INCLUDING THE FOLLOWING: SPRINGBROOK LEA, ATLANTIC LEA, GLENWOOD LEA, NEW MARKET LEA, DENNISON LEA, AND MOORHEAD LEA.
- APRIL 30TH – MAY 4TH --- STORM LAKE STATE RADIO LEA FREQUENCIES INCLUDING THE FOLLOWING: STORM LAKE LEA, MERRILL LEA, MATLOCK LEA, AND TERRIL LEA.
- MAY 14TH – 18TH --- CEDAR FALLS STATE RADIO LEA FREQUENCIES INCLUDING THE FOLLOWING: BLAIRSBURG LEA, BELMOND LEA, CEDAR FALLS LEA, HOLY CROSS LEA, GUNDER LEA, HARPERS FERRY LEA, AND LOURDES LEA.
- MAY 29TH – JUNE 1ST --- CEDAR RAPIDS STATE RADIO LEA FREQUENCIES INCLUDING THE FOLLOWING: BROOKLYN LEA, CEDAR RAPIDS LEA, MAQUOKETA LEA, AND MUSCATINE LEA.

- JUNE 11TH – 15TH --- FAIRFIELD STATE RADIO LEA FREQUENCIES INCLUDING THE FOLLOWING: ALBIA LEA, FAIRFIELD LEA, AND BEAVERDALE LEA.

4. Does the Iowa General Assembly need to pass new laws or eliminate presently existing laws to more efficiently accomplish the goal of meeting federal communications mandates

DPS is not aware of a need for legislation to more efficiently accomplish the goal of meeting the federal narrowband mandate. However, there may be the need for legislation to facilitate development and deployment of a fully interoperable communications system infrastructure, but this need is distinct from the narrowband mandate. The January 13, 2012, report from DPS to the Legislative Services Agency and the Department of Management addressed this issue with the following:

Given the significant cost to build a state interoperable voice communications infrastructure, the Department of Public Safety has requested information from potential vendors and partners, as there is a wide array of potential partnerships that can be pursued. The most obvious potential for partnership falls in the realm of tower sharing. Across Iowa, there are many hundreds of state, county, and city government communications towers, as well as hundreds of privately owned towers and structures that could be used as towers. To reduce the cost of migrating to an infrastructure built for the 700/800 MHz spectrum, partnerships must be pursued.

Beyond towers, there is additional communications infrastructure that is owned and operated by public agencies, private entities, and cooperative public-private partnerships. It is the view of the Department of Public Safety that exploration of potential partnerships should include not just towers and tower sites, but also other types of communications infrastructure. Beyond equipment and infrastructure, there may be opportunities for ongoing resource sharing and collaboration relating to maintenance and ongoing use of the system.

Until such time that the Department of Public Safety completes its review of responses to a Request for Information (see RFI discussion below) and pursues other potential partnerships, it is not possible to have comprehensive knowledge and understanding of the wide array of potential partnerships, or all of the ways in which the various private and public partners could be brought together in mutually beneficial arrangements.

In addition to the DPS effort to evaluate the responses to the DPS-issued RFI, efforts are being undertaken by the ISICSB [Iowa Statewide Interoperable Communications System Board] to solicit as much information from stakeholders and experts, such as the operators of local government public safety communications systems, to learn about the strengths and weaknesses of their existing communications systems and explore opportunities for partnerships. On January 19, 2012, the ISICSB is hosting a meeting of the operators/users of the eight largest public safety communications systems in Iowa. Given that DPS does hold

one seat on the ISICSB, it is expected that this ISICSB event will be beneficial not only to the Board's efforts, but it also may be beneficial to the DPS effort to pursue interoperability.

As these potential partnerships are being identified and assessed, it may become the case legislative changes are necessary to remove barriers to cooperation or expressly authorize certain types of partnerships or arrangements. Apart from the recognition that some barriers to partnership may exist, the Iowa Department of Public Safety has not yet clearly identified specific legal barriers that may hinder or prevent partnerships. When such barriers are identified and solutions developed, Iowa DPS will bring suggestions and requests to the Iowa General Assembly.

Implementation plan and corresponding budget to create communication interoperability between State and local public safety entities and between all state entities that use mobile and portable radios

1. How much will this cost?

It is difficult to know how much this will cost, as there is a very broad range of potential solutions. One solution to create a statewide interoperable voice communications system available to all public safety agencies would be the development of statewide communications infrastructure in the 700/800 MHz spectrum, which would require approximately 100 additional tower sites. This solution, if pursued, would solve coverage, capacity, and interference issues with current VHF systems.

The costs for each tower site would vary, however, a rough estimate of the average tower site cost is \$260,000 (which includes the tower, building, concrete, VHF antennas and heliax, grounding, power, installation, transfer panel, and generator). The estimate is inclusive of the following items:

Building 12 x 14 Concrete pad Installed	\$30,000
300 ft tower with VHF antennas and heliax	\$190,000
Fence, grounding	\$10,000
AC power phone	\$5,000
Generator - 25 kw	\$17,500
Transfer panel 200 amp	\$4,000
Freight, setup, misc	\$3,500
TOTAL	\$260,000

With the need for approximately 100 additional tower sites at an estimated cost of \$260,000 each, the total tower site need is roughly \$26 million. Additionally, a system in the 700/800 MHz spectrum would need to be a "trunked" system. "Trunked" radio systems differ from "conventional" radio systems in that a conventional radio system uses a dedicated channel

(frequency) for each individual group of users, while “trunking” radio systems use a pool of channels which are available for a great many different groups of users, thus providing far greater efficiency in use of communications resources.

A trunking system for all existing DPS tower site and the additional 100 sites is estimated to cost approximately \$90 million. The \$90 million cost, plus the \$26 million cost for additional tower sites would result in a total cost of \$116 million.

However, it is critical to note that the \$116 million estimate for a statewide 700/800 MHz interoperable voice communications infrastructure should not be considered to be the projected cost to the state, as this figure assumes that all towers would be owned by the state. The figure does not account for any of numerous options for partnerships between the state, local governments, and a wide range of private sector entities.

2. What are technical and logistical obstacles?

The technical and logistical obstacles to achieving a fully interoperable public safety communications system for all users are not fully known, but DPS is gathering information (through an RFI process) that will identify many of these barriers and suggestion possible solutions. On October 21, 2011, the Department of Public Safety issued a Request for Information relating to the provision of mission critical voice services for public safety agencies, based upon interoperable communications across the various disciplines of public safety, levels of government, and neighboring states using 700/800 MHz spectrum. State, local, and other public and emergency response personnel need highly reliable and easily accessible communications systems to provide immediate and coordinated response and assistance in times of emergency, minimizing the loss of life and property.

In the RFI, the Department expressed interest in pursuing a statewide public safety wireless communication system infrastructure to support the 700/800 MHz spectrum. The RFI specified that potential vendors or partners should describe how they might pursue development of a system infrastructure that would provide mission critical voice interoperability among its primary users and other public safety agencies to support day-to-day, mutual aid, and task force operations. The RFI also specified that any proposed system must be be highly reliable, fault tolerant, spectrally efficient, easily scalable, and meet the operational expectations of user agencies to achieve full interoperability utilizing the 700/800 MHz land mobile radio (LMR) spectrum.

The RFI closed on November 18, 2011. A total of six RFI responses were submitted from five companies. RFI responses are as follows:

- Harris
- Motorola
- RACOM
- Raytheon
- Relm Wireless (two separate responses)

The Department determined that it would be highly valuable and beneficial to have the assistance of a service provider with expertise and knowledge in the realm of public safety communications systems that is external to and independent of the department. Therefore, DPS solicited bids for a vendor to provide independent expert review services to assist DPS in evaluating RFI responses.

As of the date of this report, DPS has finalized g a contract with a communications system consulting firm, G.J. Therkelsen and Associates, Inc., of Eden Prairie, Minnesota. It is anticipated that the work of the review of RFI responses will be complete and delivered to the Iowa Department of Public Safety in approximately 30 days. At that time, a full review will be performed.

3. Timeline for implementation?

Unknown.

ADDITIONAL QUESTION FROM THE LEGISLATIVE SERVICES AGENCY

Use of the \$2.5 million appropriated to DPS for FY 2012 (equipment purchased) and plans for the \$2.5 million previously enacted for FY 2013 and FY 2014.

The initial appropriation of \$2.5 million was expended for the acquisition of 100 mobile radios for Iowa State Patrol enforcement vehicles and for repeaters for DPS towers (a repeater is an electronic device that receives a signal and retransmits it at a higher level and/or higher power, or onto the other side of an obstruction to extend the range of the signal).

The initial acquisition of 100 mobile radios was a necessary step toward narrowband compliance, interoperability, and even basic operability, as these radios were needed to outfit the regular complement of new vehicles being brought into service during the fiscal year. It should be noted, the old mobile radio vehicular repeaters, which employed crystal technology and were 13 years old, were not only narrowband incompatible, but had also aged to the point that malfunctions and maintenance problems were becoming commonplace. The acquisition of the 100 new mobile radios to replace 100 of the old mobile radios represents the immediate need, however, an additional 275 radios will need to be acquired for the Iowa State Patrol enforcement vehicle fleet. This does not include radios for other peace officers in the Department (see discussion under Section III of this report, which addresses estimated needs).

The radios are vehicular repeater capable, meet P-25 standards, and comply with the federal narrowband mandate. The vehicular repeater system provides a vital link between a Trooper who is out of their vehicle, other Troopers, and the Communications Center. When a Trooper is in their vehicle they can make use of the high power (100 watt) car mounted mobile radio, which offers considerable power to transmit to the nearest tower (though currently there is not 100 percent coverage in Iowa).

When a Trooper is outside their vehicle, their portable radio (typically worn on the equipment belt with the microphone secured near the lapel) offers very limited range due to the low power output (5 watts) of a typical portable radio. The vehicular repeater system is the bridge between the portable radio and the vehicle mounted mobile radio. A Trooper who is out of their vehicle can utilize this portable radio to communicate with the repeater system in the vehicle, which in turn routes communications through the vehicle mounted mobile radio, thereby providing the Trooper with the same high output transmission power regardless of whether they are in or out of their vehicle.

The 100 mobile units are VHF and 700/800 MHz capable. Though Iowa does not have a comprehensive, statewide interoperable public safety network for all public safety users, these radios are fully interoperable.

The 100 radios arrived at the end of November 2011, and are currently being installed in Iowa State Trooper enforcement vehicles.

The new repeaters for 28 tower locations across the State of Iowa have been acquired and are scheduled to be replaced starting January 2012. This acquisition was required to maintain the current communication infrastructure and achieve narrowband compliance for transmissions made from tower sites.

A summary of these purchases is as follows:

- \$1,066,959.00 for 100 APX 7500 Dual Band Mobile Radios and associated accessories and software, plus 100 UHF 450-470 MHz simplex cross-Band Vehicular Repeaters.
- \$1,603,789.30 for base station repeater project, which includes:
 - 31 VHF Quantar HPB repeaters for Base DPS Frequency
 - 31 VHF Quantar HPB repeaters LEA Channel
 - 4 Astro Tac satellite receivers
 - 4 Digitac voting comparators with Console Priority for Base DPS Frequency
- \$2,670,748.30 – TOTAL

The \$2.5 million appropriation has been supplemented by \$155,000 in federal resources and \$15,000 available for the replacement of a base unit damaged by lightning. Detailed technical specifications for equipment purchases can be provided upon request.

Remaining need for DPS to meet narrowband mandate.

It is anticipated that the FY 2013 appropriation will be utilized to complete the acquisition of the remaining 275 mobile radios that are needed. It is also anticipated that the \$2.5 million appropriation for FY 2014 will be utilized to initiate deployment of interoperable communications infrastructure. At present, it is not clear what system, combination of

systems, or partnerships will be pursued to advance the development of interoperable communications infrastructure.

Will narrowband compliance needs be met with the \$7.5 million?

Yes.

Issues and challenges that go beyond just compliance – such as staying within the VHF high band frequency range.

See January 13, 2012 report from DPS to the Legislative Services Agency and Department of Management (attached).

Efforts to coordinate with other agencies and find efficiencies (e.g. sharing DOT towers or other entity's towers)

See January 13, 2012 report from DPS to the Legislative Services Agency and Department of Management (attached).

Efforts for a Statewide Communications Network – overview of the RFI in October and future RFP.

See January 13, 2012 report from DPS to the Legislative Services Agency and Department of Management (attached).

What is the timeframe and what are the estimated costs to create this network?

See January 13, 2012 report from DPS to the Legislative Services Agency and Department of Management (attached).

Overall compliance of agencies with federal narrowbanding mandate – will the State achieve compliance within the required timeframe?

See January 13, 2012 report from DPS to the Legislative Services Agency and Department of Management (attached).

Once these purchases are made – will additional upgrades be needed in the next five years?

See January 13, 2012 report from DPS to the Legislative Services Agency and Department of Management (attached).



Iowa Department of Corrections

Transportation, Infrastructure and Capitals

Subcommittee Presentation

February 7, 2012

Full accounting of portable and mobile radios by department since the creation of the ISICSB

1. *How many portable and mobile radios does your department presently possess?*

2,161 handheld radios and 63 mobile units

a. *By brand*

Ericcson, Kenwood, Motorola

b. *By cost*

Average cost of existing equipment \$500 for units purchased prior to 2005 and \$1,000 after.

c. *By procurement date*

Mid-1990's through 2006

2. *Were any of these radios purchased pursuant to a competitive bid?*

a. *Reference the specific DAS public bid number that identifies all separate competitions along with copies of each RFP or RFI.*

All equipment purchased through existing state contracts let and administered by DAS.

3. *Does your department plan to purchase any portable and mobile radios in FY 2012, 2013 or 2014?*

The DOC plans to meet narrow banding compliance through funding identified in the Governor's FY2013 Recommended Budget.

b. *If yes, how many (by fiscal year) Please indicate # of radios from \$3.5M sheet and break out by FY.*

Our plan is to replace equipment in FY2013.

c. *Will these purchases be made pursuant to a competitive bid?*

DAS will administer procurement and bid process.

d. *Is your department presently in the process of procuring portable and mobile radios?*

No

- e. *Name of all individuals in your department responsible for advising on matters concerning radio procurement.*

Brad Hier, Central Office, Deputy Director Administration

Associate Wardens of Administration at each prison location

Patrick Updike, DOC Liaison to Iowa Statewide Interoperability System Board

4. *Implementation plan and corresponding budget to meet federal communications mandates*

- a. *How much will this cost?*

\$3.5M as indicated in Governor's FY2013 Recommended Budget.

- b. *What are technical and logistical obstacles?*

Collaborate with DPS with DAS administration of procurement and bid process.

- c. *Timeline for implementation?*

FY2013

- d. *Does the Iowa General Assembly need to pass new laws or eliminate presently existing laws to more efficiently accomplish the goal of meeting federal communications mandates*

None the DOC is aware of

5. *Implementation plan and corresponding budget to create communication interoperability between State and local public safety entities and between all state entities that use mobile and portable radios*

- a. *How much will this cost?*

\$3.5M as indicated in Governor's FY2013 Recommended Budget.

- b. *What are technical and logistical obstacles?*

Collaborate with DPS with DAS administration of procurement and bid process.

- c. *Timeline for implementation?*

FY2013

Additional Items

- *What are/were the RFP and acquisition processes for radios for the different agencies? If State Master Agreement was used – why? Was there a benefit to the State?*

DOC will follow DPS's lead. DAS will administer the procurement and bid process.

No DOC purchases have occurred to meet narrow banding compliance.

- *Plans for the \$3.5 million for FY 2013 for DOC (amount and type of equipment). Last year the estimate was \$1.8 million – why the increase?*

\$1.8M represented 50% of the original estimated cost

- *Will narrow banding compliance needs be met with the \$3.5 million?*

Yes



Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

515-239-1111

Date: February 6, 2012

To: Senator Matt McCoy, Co-Chair of Transportation, Infrastructure and Capitals Appropriations Subcommittee

From: Paul Trombino III, Director, Iowa Department of Transportation

Subject: Responses to Memorandum regarding Hearing on Radio Procurement Practices and Intra-Governmental Collaboration

- **Full accounting of portable and mobile radios by department since the creation of the ISICSB**
 1. **How many portable and mobile radios does your department presently possess?**
 - a. **By brand**
 - b. **By cost**
 - c. **By procurement date**

<i>Brand</i>	<i>QTY</i>	<i>Annual Cost</i>	<i>Calendar year</i>
<i>Motorola</i>	<i>1496</i>	<i>\$3,752,047.61</i>	<i>Prior to ISICSB</i>
<i>King</i>	<i>4</i>	<i>\$4,629.98</i>	<i>Prior to ISICSB</i>
<i>Trimark</i>	<i>2</i>	<i>\$6,990.00</i>	<i>Prior to ISICSB</i>
<i>Total prior ISICSB</i>	<i>1502</i>	<i>\$3,763,667.59</i>	
<i>Motorola</i>	<i>78</i>	<i>\$201,085.39</i>	<i>2007</i>
<i>Motorola</i>	<i>34</i>	<i>\$88,618.45</i>	<i>2008</i>
<i>Motorola</i>	<i>67</i>	<i>\$159,326.78</i>	<i>2009</i>
<i>Motorola</i>	<i>513</i>	<i>\$1,828,463.83</i>	<i>2010</i>
<i>Motorola</i>	<i>176</i>	<i>\$869,638.88</i>	<i>2011</i>
<i>Subtotal post ISICSB</i>	<i>868</i>	<i>\$3,147,133.33</i>	
<i>Grand Total</i>	<i>2370</i>	<i>\$6,910,800.92</i>	

At the time we began replacing aging radios in early FY10, the APX7500 was the only radio available that met the specifications of: P25, VHF, 700/800 MHz. These specs comply with the design criteria of the ISICSB/DPS state wide interoperable radio network.

Expenditures on radios purchased prior to the ISICSB creation: \$3.76 million.

Expenditures on radios purchased post ISICSB creation: \$3.15 million.

Grand Total of expenditures for all radios: \$6.91 million.

2. **Were any of these radios purchased pursuant to a competitive bid?**
 - a. **Reference the specific DAS public bid number that identifies all separate competitions along with copies of each RFP or RFI**

Yes, radios were purchased via competitively bid state master agreements.

<i>Contract #</i>	<i>Bid #</i>
<i>MA# 005 3807</i>	<i>RFB0410005032</i>
<i>MA# 005 CT1199</i>	<i>40400S026</i>

3. Does your department plan to purchase any portable and mobile radios in FY 2012, 2013, and 2014?

a. If yes, how many (by fiscal year)

Yes. FY 2012 purchase of portable and mobile radios is complete. In FY 2013 and 2014, DOT will assess radio replacement needs and coordinate with DPS.

b. Will these purchases be made pursuant to a competitive bid?

Yes. All future purchases of radios will be conducted via competitive bid.

c. Is your department presently in the process of procuring portable and mobile radios?

No.

d. Name of all individuals in your department responsible for advising on matters concerning radio procurement

<i>Information Technology</i>	<i>Barb Espeland, Division Director</i>
<i>Information Technology/Communications</i>	<i>Jeff Sundholm, Manager</i>
<i>Purchasing</i>	<i>Pat Harmeyer, Manager</i>
<i>Highway Division</i>	<i>Bob Younie, Manager</i>
<i>Motor Vehicle Enforcement</i>	<i>Dave Lorenzen, Chief</i>

• Implementation plan and corresponding budget to meet federal communications mandates

1. How much will this cost?

The DOT, with its existing radios, is compliant with the federal communications mandate of 12.5 KHz modulation (Narrow banding).

2. What are technical and logistical obstacles?

The DOT is compliant with the federal communications mandate and foresees no obstacles.

3. Timeline for implementation?

The DOT met the federal communications mandates in 2000.

4. Does the Iowa General Assembly need to pass new laws or eliminate presently existing laws to more efficiently accomplish the goal of meeting federal communications mandates

The DOT is compliant with the federal communications. No changes are needed to existing laws.

- **Implementation plan and corresponding budget to create communication interoperability between State and local public safety entities and between all state entities that use mobile and portable radios**

- 1. How much will this cost?**

The cost is unknown until the architecture for the statewide interoperable radio system is determined. The DOT is working cooperatively with DPS and ISICSB to collaboratively create a statewide interoperable radio system that will be cost effective.

- 2. What are technical and logistical obstacles?**

Obstacles are unknown at this time until decisions are made pertaining to the design of a statewide interoperable radio system.

- 3. Timeline for implementation?**

The timeline is dependent on decision of the ISICSB and DPS.



STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
ROGER L. LANDE, DIRECTOR

Date: February 3, 2012

To: Senator Matt McCoy, Co-Chair of Transportation, Infrastructure and Capitals
Appropriations Subcommittee

From: Roger Lande, Director, Iowa Department of Natural Resources

Subject: Response to Memorandum regarding Hearing on Radio Procurement Practices and
Intra-Governmental Collaboration

Hearing Date/Time: Tuesday, February 7, 2012, 10:00 AM

Hearing Location: Room 102 of the Iowa Capitol

• Memorandum Topic 1: Full accounting of portable and mobile radios by department since the creation of the ISICSB.

1. How many portable and mobile radios does your department presently possess?

- a. By brand
- b. By cost
- c. By procurement date

Response to question 1:

BRAND	QUANTITY	PROCUREMENT YEAR
Kenwood	398	Prior to ISICSB
Motorola	16	Prior to ISICSB
GE	6	Prior to ISICSB
Bendix/King	5	Prior to ISICSB
ICOM	4	Prior to ISICSB
<i>Subtotal Prior to ISICSB</i>	<i>429</i>	
Kenwood	7	2008
Kenwood	2	2010
Motorola	10	2011
<i>Subtotal Post ISICSB</i>	<i>19</i>	
GRAND TOTAL	448	

The table above outlines the current radio inventory and purchasing information. All except 19 radios were purchased prior to the ISICSB creation, with the majority being purchased over 15 years ago. DNR accounting staff researched purchasing history and, due to the number years ago and the records retention process, they were unable to locate information for the older purchases to determine cost or purchasing methods. Expenditures on radios purchased post ISICSB creation were \$14,021.78.

2. Were any of these radios purchased pursuant to a competitive bid?

- a. Reference the specific DAS public bid number that identifies all separate competitions along with copies of each RFP or RFI.

Response to question 2:

Purchases post ISICSB were made under the competitively bid State master contracts.

3. Does your department plan to purchase any portable and mobile radios in FY 2012, 2013 or 2014?

- a. If yes, how many (by fiscal year)
b. Will these purchases be made pursuant to a competitive bid?
c. Is your department presently in the process of procuring portable and mobile radios?
d. Name of all individuals in your department responsible for advising on matters concerning radio procurement.

Response to question 3:

		FY12	FY13	FY14
3.	Purchasing mobiles or portable radios?	Yes, the Department is coordinating with other state agencies and the ISICSB to determine the best route for radio purchases that will be compliant with a statewide network.	No, a purchase is not planned.	No, a purchase is not planned.
3.a.	If yes, how many?	The RFI process requested information from vendors for the purchase of 200 radios (100 portables and 100 mobiles).	n/a	n/a
3.b.	Using competitive bid process?	Yes	n/a	n/a
3.c.	Currently in the process of procuring?	The RFI process has been initiated and vendors presented on 01/26/12.	n/a	n/a
3.d.	Department advisors?	Director Lande; Deputy Director Gipp; CRD D.A. Chuck Corell; Law Enforcement Bureau Chief, Robert Garrison; Law Enforcement Supervisors and Staff	n/a	n/a

• **Memorandum Topic 2:** Implementation plan and corresponding budget to meet federal communications mandates.

1. How much will this cost?

Response to question 1:

The cost will be approximately \$1,350,000.

2. What are technical and logistical obstacles?

Response to question 2:

Officers, who often are working alone, are required to work in the most remote landscapes in Iowa in performance of their job duties which make radio communications a challenge. To maintain the safety of Officers, our Department is coordinating procurement of radios that will interact with both State and local public safety entities. The radios must be P-25 compliant and must be capable of reaching towers operated by the Iowa State Patrol, County, and City Public Safety Communication Centers. These radios should be capable of working with the current communication frequencies and have the capabilities of fulfilling the requirements of future communication needs as the state system moves to the 700 MHz spectrum.

3. Timeline for implementation?

Response to question 3:

Federal mandates require the Department to be narrowband compliant by December 31st, 2012. The radios currently used by Law Enforcement Officers, due to the age and style of the radio, cannot be reprogrammed for narrowbanding. In 2011, Iowa legislation was enacted requiring that the radios be procured by June 30, 2012.

4. Does the Iowa General Assembly need to pass new laws or eliminate presently existing laws to more efficiently accomplish the goal of meeting federal communications mandates?

Response to question 4:

Not at this time. No changes are necessary for DNR to accomplish these goals.

• **Memorandum Topic 3:** Implementation plan and corresponding budget to create communication interoperability between State and local public safety entities and between all state entities that use mobile and portable radios.

1. How much will this cost?

2. What are technical and logistical obstacles?

3. Timeline for implementation?

Response to questions 1, 2, and 3:

Due to state agencies using the dispatch system under the Department of Public Safety, the DNR is working with DPS as they take the lead in this endeavor as they research funding and logistics.